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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

TOLERANCE TABLES

To be used in connection with the  
Enforcement of the Federal Seed Act



Washington, D. C.

September 1940

## TOLERANCE TABLES

To find the amount of tolerance (T) to be allowed on any value given in the following tables for percentage of pure seed, inert matter, weed seed, or crop seed variation, first find the value in whole numbers in the left column, then any fractional part in the horizontal column at the top of the page. The tolerance (T) to be allowed on that value will then be found at the intersection of the columns opposite the value in whole numbers and below the fractional value.

Table of Tolerance for Pure Seed Variations for other than certain chaffy grasses. Computed upon the basis of Tolerance (T) = 0.6 plus 20% of the formula  $a \times b$  divided by 100. (Sec. 201.60, Rules and Regulations of the Federal Seed Act.)

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
100	.60										100
99	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	99
98	.99	.97	.95	.93	.91	.89	.87	.85	.83	.81	98
97	1.18	1.16	1.14	1.12	1.10	1.08	1.06	1.05	1.04	1.01	97
96	1.36	1.34	1.33	1.31	1.29	1.27	1.25	1.23	1.21	1.20	96
95	1.55	1.52	1.50	1.48	1.46	1.45	1.44	1.42	1.40	1.38	95
94	1.72	1.71	1.69	1.67	1.65	1.63	1.62	1.60	1.58	1.56	94
93	1.90	1.88	1.86	1.85	1.83	1.81	1.79	1.78	1.76	1.74	93
92	2.07	2.05	2.03	2.02	2.00	1.98	1.96	1.95	1.93	1.91	92
91	2.23	2.22	2.20	2.18	2.17	2.15	2.13	2.12	2.10	2.08	91
90	2.40	2.38	2.36	2.35	2.33	2.31	2.30	2.28	2.27	2.25	90
89	2.55	2.54	2.52	2.51	2.49	2.47	2.46	2.44	2.43	2.41	89
88	2.71	2.67	2.68	2.66	2.65	2.63	2.62	2.60	2.58	2.57	88
87	2.86	2.84	2.83	2.81	2.80	2.78	2.77	2.75	2.74	2.72	87
86	3.00	2.99	2.97	2.96	2.95	2.93	2.92	2.90	2.89	2.87	86
85	3.15	3.13	3.12	3.10	3.09	3.07	3.06	3.05	3.03	3.02	85
84	3.28	3.27	3.26	3.24	3.23	3.21	3.20	3.19	3.17	3.16	84
83	3.42	3.40	3.39	3.38	3.36	3.35	3.34	3.32	3.31	3.30	83
82	3.55	3.53	3.52	3.51	3.50	3.48	3.47	3.46	3.44	3.43	82
81	3.67	3.66	3.65	3.64	3.62	3.61	3.60	3.59	3.57	3.56	81
80	3.80	3.78	3.77	3.76	3.75	3.73	3.72	3.71	3.70	3.68	80
79	3.91	3.90	3.89	3.88	3.87	3.85	3.84	3.83	3.82	3.81	79
78	4.03	4.02	4.00	3.99	3.98	3.97	3.96	3.95	3.94	3.92	78
77	4.14	4.13	4.12	4.10	4.09	4.08	4.07	4.06	4.05	4.04	77
76	4.24	4.23	4.22	4.21	4.20	4.19	4.18	4.17	4.16	4.15	76
75	4.35	4.33	4.32	4.31	4.30	4.29	4.28	4.27	4.26	4.25	75
74	4.44	4.43	4.42	4.41	4.40	4.39	4.38	4.37	4.36	4.35	74
73	4.54	4.53	4.52	4.51	4.50	4.49	4.48	4.47	4.46	4.45	73
72	4.63	4.62	4.61	4.60	4.59	4.58	4.57	4.56	4.56	4.55	72
71	4.71	4.70	4.70	4.69	4.68	4.67	4.66	4.65	4.64	4.64	71
70	4.80	4.79	4.78	4.77	4.76	4.75	4.75	4.74	4.73	4.72	70
69	4.87	4.87	4.86	4.85	4.84	4.83	4.83	4.82	4.81	4.80	69
68	4.95	4.94	4.93	4.93	4.92	4.91	4.90	4.90	4.89	4.88	68
67	5.02	5.01	5.00	5.00	4.99	4.98	4.98	4.97	4.96	4.95	67
66	5.08	5.08	5.07	5.06	5.06	5.05	5.04	5.04	5.03	5.02	66

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
65	5.15	5.14	5.13	5.13	5.12	5.11	5.11	5.10	5.10	5.09	65
64	5.20	5.20	5.19	5.19	5.18	5.17	5.17	5.16	5.16	5.15	64
63	5.26	5.25	5.25	5.24	5.24	5.23	5.23	5.22	5.21	5.21	63
62	5.31	5.30	5.30	5.29	5.29	5.28	5.28	5.27	5.27	5.26	62
61	5.35	5.35	5.34	5.34	5.34	5.33	5.33	5.32	5.32	5.31	61
60	5.40	5.39	5.39	5.38	5.38	5.37	5.37	5.37	5.36	5.36	60
59	5.43	5.43	5.43	5.42	5.42	5.41	5.41	5.41	5.40	5.40	59
58	5.47	5.46	5.46	5.46	5.45	5.45	5.45	5.44	5.44	5.44	58
57	5.50	5.49	5.49	5.49	5.49	5.48	5.48	5.48	5.47	5.47	57
56	5.52	5.52	5.52	5.52	5.51	5.51	5.51	5.51	5.50	5.50	56
55	5.55	5.54	5.54	5.54	5.54	5.53	5.53	5.53	5.53	5.53	55
54	5.56	5.56	5.56	5.56	5.56	5.55	5.55	5.55	5.55	5.55	54
53	5.58	5.58	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.56	53
52	5.59	5.59	5.59	5.58	5.58	5.58	5.58	5.58	5.58	5.58	52
51	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	51
50	5.60	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	5.59	50

The tolerance for pure seed on purity less than 50% is the same as the tolerance for the larger part of the difference between the purity and 100%

Example: The tolerance for a purity of 30% would be the same as for 100% - 30% = 70% or tolerance on 70% of 4.80%

Table of Tolerance for Pure Seed Variations for the following:

Poa spp., Agrostis spp., Festuca spp., bromegrass, crested wheatgrass, orchard grass, velvet grass, tall oatgrass, meadow foxtail, sweet vernalgrass, Rhodes grass, Dallis grass, carpet grass, and Bermuda grass, and mixtures containing these seeds singly or combined in excess of 50%.

The tolerance is obtained by adding to the regular tolerance the product obtained by multiplying the regular tolerance by the lesser of "a" and "b" divided by 100. (See Sec. 201.60, Rules and Regulations of the Federal Seed Act.)

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
100	.60										100
99	.79	.77	.75	.73	.71	.69	.67	.65	.63	.61	99
98	1.00	.98	.96	.94	.92	.90	.88	.86	.83	.81	98
97	1.21	1.19	1.17	1.15	1.12	1.10	1.08	1.07	1.06	1.03	97
96	1.41	1.39	1.38	1.35	1.33	1.31	1.29	1.27	1.24	1.23	96
95	1.62	1.59	1.57	1.54	1.52	1.51	1.50	1.48	1.45	1.43	95
94	1.82	1.81	1.78	1.76	1.74	1.71	1.70	1.68	1.66	1.63	94
93	2.03	2.00	1.98	1.97	1.95	1.93	1.90	1.87	1.86	1.84	93
92	2.23	2.21	2.18	2.17	2.15	2.12	2.10	2.09	2.06	2.04	92
91	2.43	2.41	2.39	2.36	2.35	2.33	2.30	2.28	2.27	2.24	91
90	2.64	2.61	2.59	2.57	2.55	2.52	2.51	2.49	2.47	2.45	90
89	2.83	2.81	2.79	2.77	2.75	2.72	2.71	2.69	2.67	2.65	89
88	3.03	3.01	2.99	2.97	2.95	2.93	2.91	2.89	2.86	2.85	88
87	3.23	3.20	3.19	3.16	3.15	3.12	3.11	3.08	3.07	3.04	87
86	3.43	3.40	3.37	3.36	3.35	3.32	3.31	3.28	3.27	3.24	86
85	3.63	3.59	3.58	3.55	3.54	3.51	3.50	3.48	3.46	3.44	85
84	3.80	3.78	3.77	3.74	3.73	3.70	3.69	3.67	3.65	3.63	84
83	4.00	3.97	3.95	3.94	3.91	3.90	3.88	3.86	3.84	3.83	83
82	4.18	4.16	4.14	4.13	4.11	4.08	4.07	4.05	4.03	4.01	82
81	4.36	4.35	4.33	4.32	4.29	4.27	4.26	4.24	4.21	4.20	81
80	4.56	4.55	4.51	4.49	4.48	4.46	4.44	4.42	4.41	4.38	80
79	4.73	4.71	4.69	4.68	4.66	4.63	4.62	4.60	4.59	4.57	79
78	4.92	4.90	4.87	4.85	4.83	4.82	4.80	4.79	4.77	4.74	78
77	5.09	5.07	5.05	5.03	5.01	4.99	4.98	4.96	4.94	4.93	77
76	5.25	5.24	5.22	5.20	5.19	5.17	5.15	5.14	5.12	5.10	76
75	5.43	5.40	5.39	5.37	5.35	5.34	5.32	5.30	5.29	5.27	75
74	5.59	5.57	5.56	5.54	5.52	5.50	5.49	5.47	5.45	5.44	74
73	5.76	5.84	5.73	5.71	5.69	5.67	5.66	5.64	5.63	5.61	73
72	5.92	5.90	5.89	5.87	5.85	5.83	5.82	5.80	5.80	5.78	72
71	6.07	6.05	6.05	6.03	6.01	6.00	5.98	5.96	5.94	5.94	71
70	6.24	6.22	6.20	6.18	6.16	6.15	6.14	6.12	6.11	6.09	70

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
69	6.37	6.37	6.35	6.33	6.32	6.30	6.29	6.28	6.26	6.24	69
68	6.53	6.51	6.49	6.49	6.47	6.45	6.43	6.43	6.41	6.39	68
67	6.67	6.65	6.64	6.63	6.61	6.59	6.59	6.57	6.55	6.53	67
66	6.80	6.80	6.78	6.76	6.76	6.74	6.72	6.71	6.71	6.68	66
65	6.95	6.93	6.91	6.91	6.89	6.87	6.86	6.84	6.84	6.82	65
64	7.07	7.06	7.04	7.04	7.02	7.00	7.00	6.98	6.97	6.95	64
63	7.20	7.18	7.18	7.16	7.15	7.13	7.13	7.11	7.09	7.09	63
62	7.32	7.30	7.30	7.28	7.27	7.26	7.25	7.23	7.23	7.21	62
61	7.43	7.43	7.41	7.40	7.40	7.38	7.36	7.35	7.35	7.33	61
60	7.56	7.54	7.53	7.51	7.51	7.49	7.48	7.48	7.46	7.45	60
59	7.65	7.65	7.64	7.62	7.62	7.60	7.59	7.59	7.57	7.56	59
58	7.76	7.74	7.74	7.73	7.71	7.71	7.70	7.68	7.68	7.67	58
57	7.86	7.84	7.83	7.83	7.82	7.80	7.80	7.79	7.77	7.77	57
56	7.94	7.94	7.93	7.93	7.91	7.90	7.90	7.89	7.87	7.87	56
55	8.04	8.02	8.02	8.01	8.01	7.99	7.98	7.97	7.97	7.96	55
54	8.11	8.11	8.10	8.10	8.09	8.07	8.06	8.06	8.05	8.05	54
53	8.20	8.19	8.17	8.17	8.16	8.16	8.15	8.14	8.14	8.12	53
52	8.27	8.26	8.26	8.24	8.23	8.23	8.22	8.21	8.21	8.20	52
51	8.32	8.32	8.31	8.31	8.30	8.30	8.29	8.28	8.28	8.27	51
50	8.40	8.37	8.37	8.36	8.36	8.35	8.35	8.34	8.34	8.33	50

$$\text{Regular Tolerance} + \frac{\text{Regular Tol. } X(100 - \text{value})}{100}$$

Example Tolerance for 91.40%

$$\text{Regular Tolerance } 2.17\% \\ 2.17 + \frac{2.17 X(100 - 91.40)}{100}$$

$$2.17 + \frac{2.17 \times 8.60}{100}$$

$$2.17 + \frac{18.5620}{100}$$

$$2.17 + .18$$

Tolerance 2.35%

Table of Tolerance for Weed Seeds, Other Crop Seed, and Inert Matter for other than certain chaffy grasses. Computed upon the basis of Tolerance (T) = 0.2 plus 20% of the formula  $a \times b$  divided by 100. (See Sec. 201.60, Rules and Regulations of the Federal Seed Act.)

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
0	.20	.21	.23	.25	.27	.29	.31	.33	.35	.37	0
1	.39	.41	.43	.45	.47	.49	.51	.53	.55	.57	1
2	.59	.61	.63	.65	.66	.68	.70	.72	.74	.76	2
3	.78	.80	.81	.83	.85	.87	.89	.91	.93	.94	3
4	.96	.98	1.00	1.02	1.04	1.05	1.06	1.08	1.10	1.12	4
5	1.15	1.16	1.18	1.20	1.22	1.23	1.25	1.27	1.29	1.31	5
6	1.32	1.34	1.36	1.38	1.39	1.41	1.43	1.45	1.46	1.48	6
7	1.50	1.51	1.53	1.55	1.56	1.58	1.60	1.62	1.63	1.65	7
8	1.67	1.68	1.70	1.72	1.73	1.75	1.77	1.78	1.80	1.82	8
9	1.83	1.85	1.87	1.88	1.90	1.91	1.93	1.95	1.96	1.98	9
10	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.11	2.12	2.14	10
11	2.15	2.17	2.18	2.20	2.22	2.23	2.25	2.26	2.28	2.29	11
12	2.31	2.32	2.34	2.35	2.37	2.38	2.40	2.41	2.43	2.44	12
13	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.57	2.59	13
14	2.60	2.62	2.63	2.65	2.66	2.67	2.69	2.70	2.72	2.73	14
15	2.75	2.76	2.77	2.79	2.80	2.81	2.83	2.84	2.86	2.87	15
16	2.88	2.90	2.91	2.92	2.94	2.95	2.96	2.98	2.99	3.00	16
17	3.02	3.03	3.04	3.06	3.07	3.08	3.10	3.11	3.12	3.13	17
18	3.15	3.16	3.17	3.19	3.20	3.21	3.22	3.24	3.25	3.26	18
19	3.27	3.28	3.30	3.31	3.32	3.33	3.35	3.36	3.37	3.38	19
20	3.40	3.41	3.42	3.43	3.44	3.45	3.47	3.48	3.49	3.50	20
21	3.51	3.52	3.54	3.55	3.56	3.57	3.58	3.59	3.60	3.62	21
22	3.63	3.64	3.65	3.66	3.67	3.68	3.69	3.70	3.72	3.73	22
23	3.74	3.75	3.76	3.77	3.78	3.79	3.80	3.81	3.82	3.83	23
24	3.84	3.85	3.86	3.87	3.88	3.89	3.90	3.91	3.92	3.93	24
25	3.95	3.95	3.96	3.97	3.98	3.99	4.00	4.01	4.02	4.03	25
26	4.04	4.05	4.06	4.07	4.08	4.09	4.10	4.11	4.12	4.13	26
27	4.14	4.15	4.16	4.16	4.17	4.18	4.19	4.20	4.21	4.22	27
28	4.23	4.24	4.24	4.25	4.26	4.27	4.28	4.29	4.30	4.30	28
29	4.31	4.32	4.33	4.34	4.35	4.35	4.36	4.37	4.38	4.39	29
30	4.40	4.40	4.41	4.42	4.43	4.43	4.44	4.45	4.46	4.47	30
31	4.47	4.48	4.49	4.50	4.50	4.51	4.52	4.53	4.53	4.54	31
32	4.55	4.55	4.56	4.57	4.58	4.58	4.59	4.60	4.60	4.61	32
33	4.62	4.62	4.63	4.64	4.64	4.65	4.66	4.66	4.67	4.68	33
34	4.68	4.69	4.70	4.70	4.71	4.71	4.73	4.73	4.73	4.74	34
35	4.75	4.75	4.76	4.76	4.77	4.77	4.78	4.79	4.79	4.80	35
36	4.80	4.81	4.81	4.82	4.83	4.83	4.84	4.84	4.85	4.85	36
37	4.86	4.86	4.87	4.87	4.88	4.88	4.89	4.89	4.90	4.90	37
38	4.91	4.91	4.92	4.92	4.93	4.93	4.94	4.94	4.94	4.95	38
39	4.95	4.96	4.96	4.97	4.97	4.97	4.98	4.98	4.99	4.99	39
40	5.00	5.00	5.00	5.00	5.01	5.01	5.02	5.02	5.03	5.03	40

Table of Tolerance for Inert Matter, Weed Seed, and Crop Seed for the following:

Poa spp., Agrostis spp., Festuca spp., bromegrass, crested wheatgrass, orchard grass, velvet grass, tall oatgrass, meadow foxtail, sweet vernalgrass, Rhodes grass, Dallis grass, carpet grass and Bermuda grass, and mixtures containing these seeds singly or combined in excess of 50%.

The tolerance is obtained by adding to the regular tolerance the product by multiplying the regular tolerance by the lesser of "a" and "b" divided by 100. (See Sec. 201.60, Rules and Regulations of the Federal Seed Act.)

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
0	.20	.21	.23	.25	.27	.29	.31	.33	.35	.37	0
1	.39	.41	.43	.45	.47	.49	.51	.53	.55	.58	1
2	.60	.62	.64	.66	.67	.69	.71	.73	.76	.78	2
3	.80	.82	.83	.85	.87	.90	.92	.94	.96	.97	3
4	.99	1.02	1.04	1.06	1.08	1.09	1.10	1.13	1.15	1.17	4
5	1.20	1.21	1.24	1.26	1.28	1.29	1.31	1.33	1.35	1.37	5
6	1.39	1.42	1.44	1.46	1.47	1.50	1.52	1.54	1.55	1.58	6
7	1.60	1.61	1.64	1.66	1.67	1.69	1.72	1.74	1.75	1.78	7
8	1.80	1.81	1.83	1.86	1.87	1.89	1.92	1.93	1.95	1.98	8
9	1.99	2.01	2.04	2.06	2.07	2.09	2.11	2.13	2.15	2.17	9
10	2.20	2.21	2.23	2.25	2.27	2.28	2.31	2.33	2.34	2.37	10
11	2.38	2.41	2.42	2.44	2.47	2.48	2.51	2.52	2.54	2.56	11
12	2.58	2.60	2.62	2.63	2.66	2.67	2.70	2.71	2.74	2.75	12
13	2.77	2.79	2.81	2.83	2.85	2.87	2.89	2.91	2.92	2.95	13
14	2.96	2.98	3.00	3.03	3.04	3.05	3.07	3.09	3.12	3.13	14
15	3.16	3.17	3.19	3.21	3.23	3.24	3.26	3.28	3.29	3.32	15
16	3.34	3.36	3.38	3.39	3.42	3.43	3.45	3.47	3.49	3.50	16
17	3.55	3.54	3.56	3.58	3.60	3.61	3.64	3.66	3.67	3.69	17
18	3.71	3.73	3.74	3.77	3.78	3.80	3.81	3.84	3.86	3.87	18
19	3.89	3.90	3.93	3.94	3.96	3.97	4.00	4.02	4.03	4.05	19
20	4.08	4.09	4.11	4.12	4.14	4.15	4.18	4.20	4.21	4.23	20
21	4.24	4.26	4.29	4.30	4.32	4.33	4.35	4.36	4.38	4.41	21
22	4.42	4.44	4.46	4.47	4.49	4.50	4.52	4.53	4.56	4.58	22
23	4.60	4.61	4.63	4.64	4.66	4.68	4.69	4.71	4.72	4.74	23
24	4.76	4.77	4.79	4.81	4.82	4.84	4.85	4.87	4.89	4.90	24
25	4.93	4.94	4.95	4.97	4.99	5.00	5.02	5.04	5.05	5.07	25
26	5.09	5.10	5.12	5.14	5.15	5.17	5.19	5.20	5.22	5.24	26
27	5.25	5.27	5.29	5.29	5.31	5.32	5.34	5.36	5.38	5.39	27
28	5.41	5.43	5.43	5.45	5.46	5.48	5.50	5.53	5.53	5.54	28
29	5.55	5.57	5.59	5.61	5.62	5.63	5.65	5.66	5.68	5.70	29
30	5.72	5.72	5.74	5.75	5.77	5.78	5.79	5.81	5.83	5.85	30
31	5.85	5.87	5.89	5.90	5.91	5.93	5.94	5.96	5.97	5.98	31
32	6.00	6.01	6.02	6.04	6.06	6.06	6.08	6.10	6.10	6.12	32
33	6.14	6.14	6.16	6.18	6.18	6.20	6.22	6.23	6.24	6.26	33
34	6.27	6.28	6.30	6.31	6.33	6.33	6.35	6.37	6.37	6.39	34

Value %	.00	.10	.20	.30	.40	.50	.60	.70	.80	.90	Value %
35	6.41	6.41	6.43	6.44	6.45	6.46	6.48	6.50	6.50	6.52	35
36	6.52	6.54	6.55	6.56	6.58	6.59	6.61	6.61	6.63	6.63	36
37	6.65	6.66	6.68	6.68	6.70	6.71	6.72	6.73	6.75	6.75	37
38	6.77	6.78	6.79	6.80	6.82	6.82	6.84	6.85	6.85	6.87	38
39	6.88	6.89	6.90	6.92	6.92	6.93	6.95	6.95	6.97	6.98	39
40	7.00	7.00	7.01	7.01	7.03	7.03	7.05	7.06	7.08	7.08	40

$$\text{Regular Tolerance} + \frac{(\text{Regular Tolerance} \times \text{value})}{100}$$

Example Tolerance for 9.10 %

$$1.85 + \frac{(1.85 \times 9.10)}{100}$$

$$1.85 + \frac{16.8350}{100}$$

$$1.85 + .16$$

Tolerance 2.01 %

Extended Tolerance Table for Section 201.63,  
Rules and Regulations of the Federal Seed Act.

:The following: Number found:are within the by analysis :		:The following: Number found:are within the by analysis :		:The following: Number found:are within the by analysis :	
2	0	66	51	122	101
4	1	67	52	123	102
6	2	68	53	124	103
8	3	69	54	125	104
9	4	71	55	126	105
11	5	72	56	127	106
12	6	73	57	128	107
13	7	74	58	129	108
14	8	75	59	130	109
16	9	76	60	132	110
17	10	77	61	133	111
18	11	78	62	134	112
20	12	80	63	135	113
21	13	81	64	136	114
22	14	82	65	137	115
23	15	83	66	138	116
24	16	84	67	139	117
25	17	85	68	140	118
27	18	86	69	141	119
28	19	87	70	142	120
29	20	88	71	144	121
30	21	89	72	145	122
32	22	90	73	146	123
33	23	91	74	147	124
34	24	92	75	148	125
35	25	93	76	149	126
37	26	94	77	150	127
38	27	95	78	151	128
39	28	96	79	152	129
41	29	97	80	153	130
42	30	98	81	154	131
43	31	99	82	156	132
44	32	100	83	157	133
45	33	101	84	158	134
46	34	102	85	159	135
48	35	103	86	160	136
49	36	104	87	161	137
50	37	105	88	162	138
51	38	106	89	163	139
52	39	107	90	164	140
53	40	108	91	165	141
55	41	109	92	166	142
56	42	110	93	167	143
57	43	111	94	168	144
58	44	112	95	169	145
59	45	113	96	170	146
60	46	114	97	171	147
61	47	115	98	172	148
63	48	116	99	173	149
64	49	117	100	174	150
65	50				

:The following : Number found:are within the by analysis :		:The following : Number found:are within the by analysis :		:The following : Number found:are within the by analysis :	
tolerance		tolerance		tolerance	
176	151	230	201	283	251
177	152	231	202	284	252
178	153	232	203	285	253
179	154	233	204	286	254
180	155	234	205	287	255
181	156	235	206	288	256
183	157	236	207	289	257
184	158	237	208	290	258
185	159	238	209	292	259
186	160	239	210	293	260
187	161	240	211	294	261
188	162	242	212	295	262
189	163	243	213	296	263
190	164	244	214	297	264
191	165	245	215	298	265
192	166	246	216	299	266
193	167	247	217	300	267
194	168	248	218	301	268
195	169	249	219	302	269
197	170	250	220	303	270
198	171	251	221	304	271
199	172	252	222	305	272
200	173	253	223	306	273
201	174	254	224	307	274
202	175	255	225	309	275
203	176	256	226	310	276
204	177	258	227	311	277
205	178	259	228	312	278
206	179	260	229	313	279
207	180	261	230	314	280
208	181	262	231	315	281
209	182	263	232	316	282
211	183	264	233	317	283
212	184	265	234	318	284
213	185	266	235	319	285
214	186	267	236	320	286
215	187	268	237	321	287
216	188	269	238	322	288
217	189	270	239	323	289
218	190	271	240	324	290
219	191	272	241	325	291
220	192	273	242	326	292
221	193	275	243	328	293
222	194	276	244	329	294
223	195	277	245	330	295
224	196	278	246	331	296
226	197	279	247	332	297
227	198	280	248	333	298
228	199	281	249	334	299
229	200	282	250	335	300

